



Country: Mexico

Machine Tool and Metalworking Equipment

Mario Vidana
May 12

Summary

The metalworking industry is not new to Mexico; this industry began in the late nineteenth century along with the beverage, glass and truck manufacturing industries; first in northern Mexico¹ and later, throughout the rest of that country. A large number of small and medium businesses (SME) settled around the biggest buyers of sheet metal and machined parts. These SMEs survived for a long period using World War II machinery which Mexican businessmen purchased at U. S. auctions, then refurbished in their own shops. The rationale for their actions was based on the premise that “when a machine is well maintained, it will keep working another hundred years”. This worked well for most of them prior to the 1980’s. But by 1985, new types of businesses started to arrive from abroad with large demands for metal parts. That sounded promising to many small Mexican fabricators, however those companies arrived with a new manufacturing requirement, a requirement not many thought much about before: quality.

Motorola had introduced a new quality philosophy and methodology that provided a way to assure the highest quality levels. This forced Motorola suppliers to step up their quality standards - including providing training. Motorola’s Six Sigma program would produce good parts by controlling variability in the process and therefore, focus on more exact specifications. All other industries started to follow this new philosophy. Old machines with worn out parts could hardly produce products to the new demanding specifications and much less provide good parts, within an acceptable range. It was this fact that started a new era in Mexico’s importing machines and tools from the U. S.

By 1994, the signing of NAFTA (North American Free Trade Agreement) boosted foreign direct investment (FDI) into Mexico, especially from the United States to border cities such as Tijuana, Matamoros and the major cities like Monterrey, Guadalajara and Mexico City. Today, nearly all cities over Mexico are capturing the seemingly never ending investment flow coming from the U.S. & Canada, as well as Asian and European countries. These days, FDI drives 85% of Mexico’s total exports.

Without exception, all industries in Mexico are using some sort of machinery and hence use some sort of tools and metalworking equipment. **This study is concentrated in showing the trends of Machine Tools and Metalworking Equipment.**

Note. For the purpose of identifying the size of the various companies and their market share, this study considers small companies with sales below \$5 million dollars, medium size

¹ See, Nuevo Leon, Mexico: General Industry, a Market Research Nov 11, 2011 Mario Vidana

companies with sales over \$5 million but less than \$10 million and large companies with sales over \$10 million.. The reason for doing it this way and not the usual classification is because some small well equipped companies with less than 100 employees have sales greater than \$5 million.

Market Demand

To simplify this report, we have selected data for 10 major commodities identified as the main sector drivers. Please see them listed below by their NAICS nomenclature which we will use in this document. NAICS nomenclature and products every code involves are explained at the NAICS website at <http://www.naics.com>.

The table below includes the greatest import contributor in the metal market, code 335312 which is the representative of the automotive industry engine manufacturing. However, we will not discuss it in detail here.

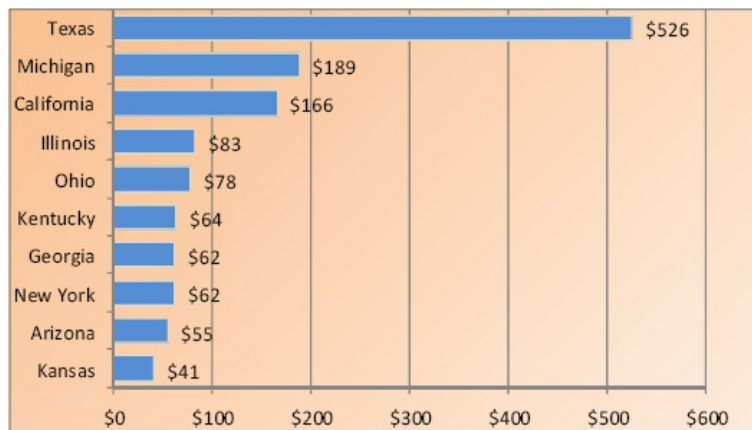
U.S. TRADE with MEXICO, SELECTED MANUFACTURED COMMODITIES				
Selected Commodities by 6-digit NAICS and Description	Exports 2011	Exports 2010	Imports 2011	Imports 2010
All Commodities	197,544	163,473	263,106	229,908
Total, Selected Commodities	3,789	2,994	5,006	4,191
331491 Other Nonferrous Metals Roll/draw/extruding	416	345	340	184
331511 Iron Foundries	287	116	93	63
332312 Fabricated Structural Metals	98	102	458	477
333511 Industrial Molds	395	405	15	12
333512 Machine Tools (metal Cutting Types)	502	298	18	5
333513 Machine Tools (metal Forming Types)	364	286	8	6
333514 Special Dies/tools, Die Sets, Jigs & Fixtures	157	124	9	6
333992 Welding & Soldering Equipment	255	164	137	110
335311 Power/distribution/specialty Transformers	180	162	1,181	1,039
335312 Motors & Generators	1,135	991	2,748	2,289

Figure 1 Trade Balance

Four important facts can be derived from analyzing the chart: First, the chart calls our attention to the business opportunities Mexico offered to U. S. companies in 2011 - amounting to \$197.5 billion in export sales. Secondly, the metalworking sector, defined by these ten commodities is a market of nearly four billion dollars. Third, machine tools and dies are drivers of a positive U.S. trade balance (they are imported back less than any other commodity); last, and most important, the export growth from year to year is about 3%, offering a growing business trend to U. S. exporters.

As seen in the chart below, nine U.S. states are leading exporters of metalworking equipment. Texas is in first place with \$526 USD billion in exports to Mexico, followed by Michigan with \$189 USD billion and California in third place with \$166 USD billion.

U.S. Exports of Metalworking Machinery to Mexico, 2011



All values in millions of dollars

Market Data

The major 10 commodities can be classified in specific categories to show the trends in purchasing habits of the Mexican buyers. As stated before, the two year trend chart above shows the important change from 2010 to 2011 with an average of 3% export growth. The main driver for this performance may be attributed to FDI growth into Mexico and the new investments in asset renovation that Mexican companies have completed in the last two years. Following, we present a brief description for each category.

MACHINES

It was not until 1994 that Mexican purchases of new machinery started to increase, especially purchasing of high precision stamping and machining equipment (NAICS 333512 and 333513). By 2000, many sheet metal stamping businesses already had at least one CNC punch turret and their associated bending and forming machinery as well as some sort of welding equipment. Today, those same companies have either increased the number of machines of the same type or included some type of larger gauge plate cutting machine like water jet, plasma or laser. This trend is observed mostly in medium to large companies, those with the highest commitment to quality and service.

The machining market declined in 2000 due to the migration of many U. S. companies to China. Some Mexican machining businesses went broke or had to diversify. Five years later, the same U. S. companies returned to the good, reliable and low cost Mexican suppliers after a difficult experience in Asia. It is then, in 2005, when a surge of new machine technology was exported across the Mexico – U. S. border to stay in Mexican machining shops: CNC Mills, horizontal and vertical machine centers from two axis and more as well as specialized EDMs and other metal cutting equipment.

TOOLS

Hand and edge tools (NAICS 332212) are one of the top ten of U. S. commodities exported to Mexico in the machine tool and metalworking sector. From Figure 1 above, it can be noted that, there are some commodities that maintain a surplus in the trade balance with Mexico. Their export value is higher than what gets imported back to the United States: 333513, 333514, 333515, and 334517.

Top Ten Commodities		2010 Exports	2011 Exports
334515	Electricity/ Measuring / Testing Instruments	462	538
333513	Machine Tools (Metal Forming)	286	364
334510	Electro medical Apparatus	323	363
333512	Machine Tools (Metal Cutting)	502	298
334516	Analytical Laboratory Instruments	231	268
333612	Speed Changers/ Industrial H. Speed Drivers/Gears	225	246
333515	Cutting Tools and Machine Tool Accessories	155	206
333514	Special Dies Tools / Die Sets, Jigs and Fixtures	124	157
332212	Hand and Edge Tools	136	138
334517	Irradiation Apparatus	129	137

Figure 2 Two Year Export Trends

SPARE PARTS

Spare parts (NAICS 333514 and 333515) are important because the cutting tools or forming molds utilized to shape steel and nonferrous materials are constantly wearing out. Also stamping turret tools are exported mostly as new tools to add stamping capabilities or replace worn out tools. A good Mexican manufacturer of parts will have a stringent maintenance system that monitors tool status to determine its continued functionality. Others have already identified their tool life cycle and replace their tools at certain periods. This has created the need for U. S. tools suppliers to assure quick deliveries, permit some inventory levels at their customer's premises or physically move near their large buyers. Brands such as Mate and Wilson are popular for stampings and Kyocera, Garr Tool and Kennametal for machining.

The metal working industry drives additional opportunities in the measuring and testing device sectors. These are utilized within the quality inspection laboratories as any good shop has to assure a compliant product before it gets shipped. the following categories show significant export figures.

MEASURING

Survivors from the Mexico's 2000 manufacturing crisis have learned that, quality is a factor of the upmost importance to their success in the new global market. Therefore, even the smallest shop now utilizes quality assurance methods and techniques. The NAICS 334515 category includes items from the simple use of a vernier or micrometer for small companies to sophisticated CMM machines. Carle Zeiss, Mitutoyo, Kronos are representative brands for this category.

EQUIPMENT

Maintenance is another important factor in the success of a manufacturing facility. A factory with good maintenance practices will assure continued and timely supply to their customers. Maintenance technicians in the various factories make use of similar portable equipment for their inspection checkups. NAICS code 334515¹ also includes instruments like current measuring equipment, distortion meters, electrical signal testing, spectrum analyzers, and others. Fluke, Tektronix, Agilent, among others are representative brands in this category.

Best Prospects

All U. S. companies planning to enter the Mexican market should consider preparing a complete marketing plan including a proposal for distributors, representatives or agents, including a) initial purchase amount, b) sales territories, c) quarterly sales goals, d) product warranties, e) commission terms, f) training and g) credits terms for distributors and others.

As mentioned before, there is always market for new machinery in Mexico, especially these days when Mexican companies are getting rid of their older assets. When a U. S. exporter is selling machinery, the best prospects, are those **dealers** with wide experience in the related industries; those with over 10 years of experience who also sell to OEMs or large companies. Also desirable are dealers that would also sell all related tools², for the machine brands they represent. Otherwise, a second option is to search for a **distributor**.

The tool market is widely populated with brands from Asia, Europe, and North America. They all compete in price and reliability. U. S. tool suppliers might need a little more aggressive sales strategy when selling in Mexico. Knocking doors and meeting with potential buyers in a frequent manner, is a must. Once a relationship has been established, sales start to take place. The tool market then is gained through the effort and continued work a **representative** or sales **agent** can provide. Either of the two will focus in sales while your U. S. office may work out shipments to their customers in Mexico, issue invoices and collect payments, without the agent or representatives handling funds at all.

A **direct sale** is only recommended with OEMs or Tier 1 and Tier 2 manufacturers, since the majority of them perform their own imports to their plants in Mexico. The U. S. supplier delivers their products at the border crossing gate, resulting in freight cost savings. Travel expenses must be included in the equation to determine cost of sales versus profit. Unless frequent trips result in increased sales every time, companies should consider the previous two options.

Key Suppliers

Almost every famous brand is on sale at Mexican machine/tool dealer stores already. As described in the above paragraphs, many U. S. firms are already selling through distributors and local dealers, as it is true Asian firms are also on display and competing in price, reliability and

² When reading “tools” in this document we are referring to cutting, bending, forming and welding.

are gaining territory very rapidly. Mexican buyers praise quality as much as they do price; however, service is most times the final driver of a purchase. Asian suppliers with their low cost tools are taking advantage of that by offering same day delivery and technical service 24/7.

Prospective Buyers

In Mexico, a large amount of companies are in the Machine Tool and Metalworking dealer business and hold nearly 80% of the market, the other 20% is shared with foreign companies. The majority of them are registered at SIEM (www.siem.gob.mx) for this is required to operate; this registry is user friendly and free to access. Another good source of information is COSMOS (www.cosmos.com.mx) a public database all suppliers use to promote their products and services for free in the basic service or with a fee for some web promotion tools. One fast search in either of these databases will give U. S. exporters an idea of the type of companies selling similar products or brands they represent.

Market Entry

Mexico is open to business and there many countries are taking advantage of this. U.S. companies are sending almost 13% of all manufactured goods to Mexico. In 2011, the metal working market reported an increase of 2.67% in U. S. exports, compared to the previous year. Experts predict a continued growth of at least 3%, every year³. Intelligent market entry strategies should include any or all of the following:

- Make your own “TradeStats”⁴ analysis.
- Calculate your costs for freight and customs fees.
- Survey your competitors in target countries.
- Contact us for recommendations for CS products (See below “For More Information”).
- Define your best partner profile.
- Meet your prospective partner.
- Present your offer.
- Give time for a response, but do follow up.
- Perform a due diligence.
- Sign contract.

U. S. companies driven by their competition often forget or disregard the importance of defining their best partner profile and their outlined offer for distribution or representation with preferential prices and commission fees. Any territorial agreement, sales inventory or sales requirements should be proposed upfront. When exporters meet with their Mexican partner without thinking of these issues in advance, they can waste valuable time and effort.

U. S. companies may also request the U. S. Commercial Service in Mexico to counsel on the best way to approach to potential prospects.

³ How Mexico Creates American Jobs , WSJ Andrew Selee and Christopher Wilson March 22, 2012

⁴ ITA Trade Stats Express Home at <http://tse.export.gov/TSE/TSEHome.aspx>

Market Issues

Crime. Starting in 2008, Mexico experienced an increase in road robberies. The federal government has implemented stringent security provisions to assure the integrity of goods transported in Mexican main highways. The most frequent cases are related to products like Baby Food, Diapers, Medicine and drugs, automotive parts and vehicles, appliances and hardware. Very few cases are reported for machinery in general.

Travel risks. Sales representatives in trips to Mexico are always encouraged to review the U. S. Department of State travel information website (<http://travel.state.gov/travel/>) before making a trip. It is important to notice though, that business activity is increasing day after day, thousands of travelers attend the Mexican trade shows and millions of dollars in trade operations are carried out by foreign representatives every year in Mexico.

Important Trade Events in Machine Tool and Metalworking Sector

(For information about these events see contact information at end of this document)

Expo Pack Mexico (<http://www.expopack.com.mx/2012/en/index.html>)

Date: 26-Jun-12 to 29-Jun-12

Expo Pack Mexico is the premier exhibition of packaging and processing machinery, materials and associated technology in Mexico. Expo Pack Mexico is the only major exhibition in Mexico dedicated to packaging, machinery and ancillaries. It attracts packaging professionals and users from around the world and serves as a mutually beneficial meeting place for buyers and sellers.
Venue: Centro Banamex Exhibition Centre, Mexico

PAACE Automechanika Mexico (<http://www.paaceautomechanika.com/>)

Date: 18-Jul-12 to 20-Jul-12

Organized by Messe Frankfurt GmbH at Centro Banamex, Av. Conscripto 311, Col. Lomas de Sotelo, Del. Miguel Hidalgo, Mexico, the PAACE AUTOMECHANIKA MEXICO is characterized as a vital automotive show. More than 18,000 visitors from various parts of the world are expected to attend the event.
Venue: Expo Banamex, Mexico City

Fabtech Mexico (www.metalmecanica2012.com.mx)

Date: 07-May-13 to 09-May-13

Metalform Mexico is the premier exposition and conference for the metalforming industry. It is focused on stampers and fabricators, attracts a high quality audience, a unique sales opportunity for exhibitors, and an exceptional educational opportunity for attendees.
Venue: Cintermex, Monterrey, Mexico.

EXPO MANUFACTURA™ 2013 (www.expomanufactura.com.mx/2013/)

Date: 05-Feb-13 to 07-Feb-13

Machine tools for the automotive, aerospace, medical devices and plastic injection industries. Expo Manufactura brings the most influential engineering and industry professionals from small to large manufacturing companies that are in search of solutions for production.
Venue: Cintermex, Monterrey, Mexico

TECMA 2013 (<http://www.tecma.org.mx>)

Date: 05-Mar-13 to 08-Mar-13

The fifteen International Machine Tool Exhibition; a biennial fair for machine tool technology and their peripherals, material handling and quality control.

Venue: Expo Bancomer Santa Fe, Mexico City.

Resources & Contacts

Country Statistics. <http://www.inegi.org.mx/default.aspx?>

Mexico Economy. <http://www.economia.gob.mx/swb/en/economia>

American Chamber of Commerce <http://www.amcham.org.mx>

Asociación de Maquiladoras y Manufactureras de Exportación de Nuevo León, A.C. (AMME NL) <http://www.amnl.org.mx/>

For More Information

The U.S. Commercial Service in Monterrey can be contacted by:

e-mail: Mario.Vidana@trade.gov

Phone: (81) 8047 3118

Fax: (81) 8047 3188

Website: www.export.gov/mexico

The U.S. Commercial Service — Your Global Business Partner

With its network of offices across the United States and in more than 80 countries, the U.S. Commercial Service of the U.S. Department of Commerce utilizes its global presence and international marketing expertise to help U.S. companies sell their products and services worldwide. Locate the U.S. Commercial Service trade specialist in the U.S. nearest you by visiting <http://www.export.gov/eac>.

Comments and Suggestions:

We welcome your comments and suggestions regarding this market research.

You can e-mail us your comments/suggestions to: Customer.Care@mail.doc.gov. Please include the name of the applicable market research in your e-mail. We greatly appreciate your feedback.

Disclaimer: The information provided in this report is intended to be of assistance to U.S. exporters. While we make every effort to ensure its accuracy, neither the United States government nor any of its employees make any representation as to the accuracy or completeness of information in this or any other United States government document. Readers are advised to independently verify any information prior to reliance thereon. The information provided in this report does not constitute legal advice.

International copyright, U.S. Department of Commerce, 2012. All rights reserved outside of the United States.